

CLAIMS

Claim 1. An airborne search and rescue system comprising:

means mounted to an aircraft for generating and transmitting a laser signal,

means mounted to a person to be located for reflecting said laser signal back to said aircraft from which said laser signal was transmitted,

means on said aircraft for processing said reflected laser signal from said means mounted to said person to be located, and

stabilization means for said search and rescue system, said stabilization means comprising at least one galvanometer motor.

Claim 2. The system as claimed in Claim 1, wherein said stabilization means comprises two galvanometer motors.

Claim 3. The system as claimed in Claim 1, wherein said stabilization means is adapted to provide pitch stabilization.

Claim 4. The system as claimed in Claim 3, wherein said stabilization means comprises a flat mirror.

Claim 5. The system as claimed in Claim 4, wherein said flat mirror is arranged to be driven by one said galvanometer motor.

Claim 6. The system as claimed in Claim 5, wherein said flat mirror is arranged to direct a substantially 90° scan pattern generated by a scan mirror in a direction downwards towards the ground.

Claim 7. The system as claimed in Claim 5, wherein input to said galvanometer motor is obtained from a vertical gyro or inertial measurement unit.

Claim 8. The system as claimed in Claim 1, wherein said stabilization means is adapted to provide roll stabilization.

Claim 9. The system as claimed in Claim 8, wherein one said galvanometer motor is adapted to compensate for bearing friction.

Claim 10. The system as claimed in Claim 9, wherein said roll stabilization is provided by utilizing the rotational angular inertia of a stabilized platform of said system for reducing the required torque and power of a roll stabilization servo system.

Claim 11. The method as claimed in Claim 2, wherein one of said two galvanometer motors is adapted to provide pitch

stabilization, and the other of said two galvanometer motors is adapted to provide roll stabilization.

Claim 12. A method of locating a person, said method comprising:

generating and transmitting a laser signal from an aircraft in flight;

reflecting said laser signal transmitted from said aircraft back to said aircraft by a reflective device mounted on a person to be located;

processing said laser signal back to said aircraft to determine the position of said person to be located, and

providing stabilization of said search and rescue system by at least one galvanometer motor.

Claim 13. The method as claimed in Claim 12, wherein the step of providing stabilization includes the step of providing stabilization by two galvanometer motors.

Claim 14. The method as claimed in Claim 12, wherein the step of providing stabilization includes the step of providing pitch stabilization.

Claim 15. The method as claimed in Claim 14, wherein the step of providing pitch stabilization includes the step of arranging a flat mirror to be driven by one said galvanometer motor.

Claim 16. The method as claimed in Claim 15, further including the step of directing a substantially 90° scan pattern generated by a scan mirror in a downward direction towards the ground by said flat mirror.

Claim 17. The method as claimed in Claim 12, wherein the step of providing stabilization includes the step of providing roll stabilization.

Claim 18. The method as claimed in Claim 17, further including the step of compensating for bearing friction by one said galvanometer motor.

Claim 19. The method as claimed in Claim 18, wherein the step of providing roll stabilization includes the step of utilizing rotational angular inertia of a stabilized platform for reducing the required torque and power of a roll stabilization servo system.

Claim 20. The method claimed in Claim 13, further including the steps of:

providing pitch stabilization using one of said two galvanometer motors, and

providing roll stabilization using the other of said two galvanometer motors.